

## Assignment Operators

Variable assignment is a form of expression; in fact, because one assignment expression results

in a value, you can string them together like this:

```
x = y = z = 0;
```

In this example, all three variables now have the value 0.

The right side of an assignment expression is always evaluated before the assignment takes place.

This means that expressions such as  $x = x + 2$  do the right thing; 2 is added to the value of  $x$ , and then that new value is reassigned to  $x$ . In fact, this sort of operation is so common that Java has several operators to do a shorthand version of this, borrowed from C and C++.

There are following assignment operators supported by Java language:

=	Simple assignment operator	$C = A + B$ will assign value of $A + B$ into $C$
+=	Add AND assignment operator	$C += A$ is equivalent to $C = C + A$
-=	Subtract AND assignment operator	$C -= A$ is equivalent to $C = C - A$
*=	Multiply AND assignment operator	$C *= A$ is equivalent to $C = C * A$
/=	Divide AND assignment operator	$C /= A$ is equivalent to $C = C / A$
%=	Modulus AND assignment operator	$C \% = A$ is equivalent to $C = C \% A$
<<=	Left shift AND assignment operator	$C << = 2$ is same as $C = C << 2$
>>=	Right shift AND assignment operator	$C >> = 2$ is same as $C = C >> 2$
&=	Bitwise AND assignment operator	$C \& = 2$ is same as $C = C \& 2$
^=	bitwise exclusive OR and assignment operator	$C \wedge = 2$ is same as $C = C \wedge 2$
=	bitwise inclusive OR and assignment operator	$C  = 2$ is same as $C = C   2$

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### For Example:

The following simple example program demonstrates the assignment operators.

```
public class Test

{

public static void main(String args[])

{

    int a =10;

    int b =20;

    int c =0;

    c = a + b;

    System.out.println("c = a + b = "+ c );

    c += a ;

    System.out.println("c += a = "+ c );

    c -= a ;

    System.out.println("c -= a = "+ c );

    c *= a ;
```

```
System.out.println("c *= a = "+ c );
```

```
a =10;
```

```
c =15;
```

```
c /= a ;
```

```
System.out.println("c /= a = "+ c );
```

```
a =10;
```

```
c =15;
```

```
c %= a ;
```

```
System.out.println("c %= a = "+ c );
```

```
c <<=2;
```

```
System.out.println("c <<= 2 = "+ c );
```

```
c >>=2;
```

```
System.out.println("c >>= 2 = "+ c );
```

```
c >>=2;
```

```
System.out.println("c >>= a = "+ c );
```

```
c &= a ;
```

```
System.out.println("c &= 2 = "+ c );
```

```
c ^= a ;
```

```
System.out.println("c ^= a = "+ c );
```

`c |= a ;`

`System.out.println("c |= a = "+ c );`

`}`

`}`

### **Out Put Screen**

`c = a + b =30`

`c += a =40`

`c -= a =30`

`c *= a =300`

`c /= a =1`

`c %= a =5`

`c <<=2=20`

`c >>=2=5`

`c >>=2=1`

`c &= a =0`

`c ^= a =10`

`c |= a =10`